

## **REMARKS**

Applicants acknowledge receipt of an Office Action dated January 31, 2008. In this response, Applicants have amended claims 6-8. Additionally, claims 1-5 are cancelled without prejudice or disclaimer. Following entry of this amendment, claims 6-8 remain pending in the application.

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

### **Information Disclosure Statement**

Applicants respectfully note that the PTO has not considered reference A3 listed on the Information Disclosure Statement form SB/08 submitted by Applicants on November 12, 2004. In the Office Action of June 20, 2007, the PTO crossed off reference A3 and included an annotation noting that no English abstract was provided and that the PTO could not locate an abstract on PAJ (Patent Abstracts of Japan).

Applicants respectfully note that reference A3 was cited by the Japanese Patent Office on the International Search Report dated August 26, 2003 (a copy of the International Search Report dated August 26, 2003 was submitted with the Information Disclosure Statement on November 12, 2004). With this response, Applicants are resubmitting a copy of the International Search Report dated August 26, 2003 along with a clean copy of the form SB/08 for the PTO to initial, sign, and date and return to Applicants with its next communication.

### **Rejection Under 35 U.S.C. § 102/§ 103**

On page 2 of the Office Action, the PTO has rejected claim 1 as allegedly being anticipated under 35 U.S.C. § 102(b), or as allegedly obvious under 35 U.S.C. § 103(a) by U.S. Patent 3,890,816 to Allen *et al.* (hereafter "Allen") and further evidenced by Material Hardness. On page 3 of the Office Action, the PTO has rejected claim 2 as allegedly being anticipated under 35 U.S.C. § 102(b), or as allegedly obvious under 35 U.S.C. § 103(a) by Allen and further evidenced by Material Hardness. On page 4 of the Office Action, the PTO has rejected claim 3 as allegedly being anticipated under 35 U.S.C. § 102(b), or as allegedly obvious under 35 U.S.C. § 103(a) by U.S. Patent 5,939,204 to Czech (hereafter "Czech") as further evidenced by Material Hardness. Also on page 4 of the Office Action, the PTO has

rejected claim 4 as allegedly being anticipated under 35 U.S.C. § 102(b), or as allegedly obvious under 35 U.S.C. § 103(a) by Czech as further evidenced by Material Hardness.

In this response, Applicants have cancelled claims 1-4 without prejudice or disclaimer, rendering these rejections moot. Applicants respectfully request that the PTO withdraw the pending rejections under 35 U.S.C. §102/§103.

### **Rejection Under 35 U.S.C. § 103**

On page 5 of the Office Action, the PTO has rejected claims 1, 7, and 8 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Japanese Patent 01-156445 (hereafter “JP ‘445”) as evidenced by ASTM Standard E 140-07 (hereafter “ASTM 140”) in view of U.S. Patent 5,529,642 to Sugahara *et al.* (hereafter “Sugahara”). Also on page 5 of the Office Action, the PTO has rejected claim 5 under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent 4,798,633 to Martin *et al.* as evidenced by Material Hardness in view of U.S. Patent 6,503,345 to Klarstrom (hereafter “Klarstrom”). Additionally, on page 6 of the Office Action, the PTO has rejected claim 6 under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent 3,015,558 to Grant *et al.* (hereafter “Grant”) as evidenced by Material Hardness in view of Klarstrom. Applicants traverse these rejections for at least the reasons set forth below.

The framework for the objective analysis for determining obviousness under §103 requires:

1. Determining the scope and content of the prior art;
2. Ascertaining the differences between the claimed invention and the prior art;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

*Teleflex, Inc. v. KSR Int’l Co.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In order to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See MPEP §2143.03.

In this response, Applicants have cancelled claims 1 and 5 without prejudice or disclaimer, rendering these rejections moot.

Here, JP '445, ASTM 140, and Sugahara, whether taken individually or in combination, fail to teach or suggest a cutter wherein “when the total content of Mg, Ca, and B is 0.015 mass percent or more, the total content of P, O, and S is greater than zero and less than or equal to 0.003 mass percent and the total content of Mn, Cu and Si is greater than zero and less than or equal to 0.03 mass percent” as recited in claim 6, on which claims 7-8 now depend.

Here, Grant, Material Hardness, and Klarstrom, whether taken individually or in combination, fail to teach or suggest a cutter wherein “when the total content of Mg, Ca, and B is 0.015 mass percent or more, the total content of P, O, and S is greater than zero and less than or equal to 0.003 mass percent and the total content of Mn, Cu and Si is greater than zero and less than or equal to 0.03 mass percent” as recited in claim 6. As noted by the PTO on page 6 of the Office Action, neither Grant or Material Hardness teach or suggest the P, O, and S as presently claimed.

Klarstrom fails to resolve the deficiencies of Grant and Material Hardness. Klarstrom states that N, O, P, and S “may be present in amounts up to about 0.1 percent without substantial harm to the alloys of the present invention, they are preferably present only up to about 0.02 percent each.” Klarstrom, Col. 8, lns. 34-40. The amount of 0.02 percent of each N, O, P, and S (up to 0.06 percent P, O, and S) is more than a factor of ten larger than the presently claimed amounts of up to 0.003 mass percent.

The PTO cannot rely on the statement of Klarstrom that N, O, P, and S “are usually present in small amounts in all alloys.” Klarstrom, Col. 8, lns. 34-37. This statement does not quantify how much of the elements are “usually present” beyond small amounts, and the exemplary amounts listed in Klarstrom are twenty times and thirty-three times more than the amounts of the presently claimed invention. Klarstrom, Col. 8, lns. 34-40. There is no indication that the “small amounts” of Klarstrom are on the order of “less than or equal to 0.003 mass percent” as presently claimed.

Furthermore, the presently claimed cutting tool minimizes the amount of P, O, and S, such that the contents of the presently claimed cutter “can effectively decrease cracks generated during working.” Specification, pg. 12, lns. 7-10. This makes it possible to perform a stable hot-working operation even if a degree of accuracy of controlling the hot-working temperature is low.

For at least these reasons, Applicants submit that the rejection based upon the combination of Grant, Material Hardness, and Klarstrom is improper and ought to be withdrawn.

If an independent claim is nonobvious under § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03. Thus, Applicants submit that claims 7-8, each of which depends from independent claim 6, are also non-obvious at least by virtue of their dependency from claim 6.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection under § 103.

### CONCLUSION

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith.

Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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